REMARKS/ARGUMENTS

Claims 1 through 12 are pending in the present application, and have been examined. The Applicant would like to take this opportunity to thank the Examiner for allowing claims 3, 5-7, 9, 10, and 12.

Claims 2, 4, 8, and 11 were rejected under 35 U.S.C. 112, second paragraph as being indefinite. Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,909,462 ("Kamerman").

The Applicant hereby amends claims 1, 4, 8 and 11 to more clearly and explicitly set forth what had been previously claimed. Additionally, the Applicant cancels claim 2. The Applicant's amendments have not in any way narrowed the previous scope of the amended claims. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

In view of the Applicant's amendments, and the remarks set forth below, the Applicant respectfully requests reconsideration of the claim rejections in the Office Action.

I. Rejection Under Section 112, Second Paragraph

In paragraphs 1-3 of the Office Action, claims 2, 4, 8, and 11 were rejected as being indefinite. The Applicant has cancelled claim 2, and has amended claims 4, 8, and 11 to more particularly point out and distinctly claim the present invention. The Applicant's amendments have not added any new matter, nor have they narrowed the scope of the claims as previously written. In light of these amendments, the Applicant respectfully requests that the rejection of these claims under Section 112, second paragraph, be withdrawn.

II. Rejection Under Section 102(b)

In paragraph 4 of the Office Action, claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by Kamerman. The Applicant respectfully traverses this rejection.

Claim 1 requires forming a training portion of a packet "by serially connecting K sequences (where K is an integer of 2 or more), each of said K sequences being formed of N symbols (where N is an integer of 2 or more)." Kamerman does not disclose or suggest forming a training portion of a packet in the manner required by claim 1. Kamerman describes the training preamble of a packet as comprising consecutive fields (i.e., sequences) of different bit lengths. There is nothing in Kamerman that teaches or suggests that the training preamble should be formed by serially connecting two or more sequences, each of the sequences being formed of the same number "N" of symbols, as is required by claim 1. As a result, the Applicant respectfully submits that Kamerman does not anticipate claim 1, and that the rejection of claim 1 should be withdrawn.

III. Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

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Respectfully submitted,

By

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Version With Markings to Show Changes Made

1. (Amended) A method <u>of</u> configuring packets, said packets each [having] <u>including</u> a training portion and a data portion [to set a receiver], <u>the method</u> comprising [the step of:] forming said training portion by serially connecting K sequences (where K is an integer of 2 or more), each of said K sequences being formed of N symbols (where N is an integer of 2 or more)[.], wherein [said the] <u>an</u> auto-correlation function [of] <u>for</u> said [N symbol] sequence <u>of N symbols</u> is in an impulse state.

2. (Cancelled) The packet configuring method defined in Claim 1, wherein an auto-correlation function for said sequence of N symbols is in an impulse state.

3. (Amended) A packet receiver that receives packets, each <u>packet including</u> [which is formed of] a training portion and a data portion <u>used</u> to initialize [of] said <u>packet</u> receiver, said training portion being formed by serially connecting K sequences (where K is an integer of 2 or more), each of said K sequences being formed of N symbols (where N is an integer of 2 or more), <u>the packet receiver</u> comprising:

<u>a</u> frequency-offset estimation means for estimating a frequency offset based on a phase difference between two neighboring sequences of K sequences <u>of</u> a received packet, each of said K sequences being formed of N symbols;

<u>a</u> frequency-offset compensation means for compensating a frequency offset contained in said received packet based on said frequency offset estimation [value]; and

<u>a</u> channel impulse response estimation means for estimating an impulse response of a channel based on an output [of] <u>for</u> which the frequency offset is compensated.

4. (Amended) The packet receiver defined in Claim 3, wherein<u>:</u>

[the] <u>an</u> auto-correlation function of said N symbol sequences is in an impulse state; and [wherein]

said channel impulse response estimation means comprises means for estimating a channel impulse response based on a sequence [of] for which the auto-correlation function is in an impulse state, and a received training sequence.

7. (Amended) A packet receiver for receiving packets, each of said packets [having] including a training portion and a data portion used to initially set a receiver, said training portion being formed by serially connecting K sequences (where K is an integer of 2 or more), each of K sequences being formed of N symbols (where N is an integer of 2 or more), said packet receiver comprising:

a frequency offset estimation means for detecting a phase difference between a sequence received prior to NT (where T is a continuous time of one symbol) and a currently received sequence, and for [then] estimating a frequency offset based on said phase difference;

a frequency offset compensation means for compensating said frequency offset by rotating the phase of a received signal in the frequency offset compensation direction based on a frequency offset estimation value; and

a channel impulse estimation means for estimating an impulse response of a channel based on an output from an output [of] for which the frequency offset is compensated.

8. (Amended) The packet receiver defined in Claim 7, wherein [the] an auto-correlation function of said N symbol sequences is in an impulse state; and wherein said channel impulse response estimation means comprises means for estimating a channel impulse response based on a sequence [of] in which the auto-correlation function is in an impulse state, and a received training sequence.

10. A packet receiving method for receiving packets, each of said packets [having] including a training portion and a data portion to initially set a receiver, said [for] training portion being formed by serially connecting K sequences (where K is an integer of 2 or more),

each of said K sequences being formed of N symbols (where N is an integer of 2 or more), <u>said method</u> comprising [the steps of]:

estimating a frequency offset based on a phase difference between two neighboring sequences of K sequences of a received packet, each of K sequences being formed of N symbols;

compensating a frequency offset contained in said received packet based on a frequency offset estimation value; and

estimating an impulse response of a channel based on a received packet of which the frequency offset is compensated.

11. (Amended) The packet receiving method defined in Claim 10, wherein said step of estimating an impulse response of said channel comprises estimating a channel impulse response by [making] <u>placing</u> [the] <u>an</u> auto-correlation function of said [N symbol] sequence <u>of N symbols</u> in an impulse state, and detecting a peak value of an autocorrelation value between a received signal and [an] <u>said</u> [N symbol] sequence <u>of N symbols</u>.